

### **Amendments to the Claims:**

This listing of claims replaces all prior listings and versions of claims in this application:

1. (currently amended) A method of treating a disease associated with an abnormal gastrointestinal flora selected the group consisting of juvenile rheumatoid arthritis, multiple-sclerosis, autoimmune disease, Attention Deficit Disorder, Depression, bipolar disorder, Alzheimer's disease, Parkinson's Disease, Whipple's Disease, Tourette's Syndrome, Asperger's syndrome, Pervasive Development Disorder, early onset autism, regressive autism, Rhett's Syndrome, schizophrenia, and obsessive-compulsive disorder, said method ~~comprising~~ consisting of administering to a patient suffering therefrom an antimicrobial composition effective against the abnormal microorganism in an amount effective for treating said disease, wherein the antimicrobial composition is an antibacterial agent; and subsequently administering a probiotic agent comprising at least one of the bacterial species that is a normal, benign inhabitant of a human gut.

2. (original) The method of claim 1, wherein said abnormal microorganism is of the genus *Clostridium*, *Bifidobacterium*, *Streptococcus*, or *Lactobacillus*.

3. (previously presented) The method of claim 2, wherein said abnormal microorganism is *Clostridium*.

4-9. (cancelled)

10. (original) The method of claim 1, wherein said probiotic agent is selected from the group consisting of *Bacteroides*, *Prevotella*, *Porphyromonas*, *Fusobacterium*, *Sutterella*, *Bilophila*, *Campylobacter*, *Wolinella*, *Butyrovibrio*, *Megamonas*, *Desulfomonas*, *Desulfovibrio*, *Bifidobacterium*, *Lactobacillus*, *Eubacterium*, *Actinomyces*, *Eggerthella*, *Coriobacterium*, *Propionibacterium*, other genera of non-sporeforming anaerobic gram-positive bacilli, *Bacillus*, *Peptostreptococcus*, newly created genera originally classified as *Peptostreptococcus*, *Peptococcus*, *Acidaminococcus*, *Ruminococcus*, *Megasphaera*, *Gaffkya*, *Coprococcus*, *Veillonella*, *Sarcina*, *Clostridium*, *Aerococcus*, *Streptococcus*, *Enterococcus*, *Pediococcus*, *Micrococcus*, *Staphylococcus*, *Corynebacterium*, species of the genera comprising the *Enterobacteriaceae* and *Pseudomonadaceae*, and mixtures thereof.

11. (original) The method of claim 1, wherein the antimicrobial composition is in the form of a tablet or capsule which is enteric coated.

12. (original) The method of claim 1, wherein the abnormal microorganism produces a toxin or a toxic metabolite.

13. (previously presented) The method of claim 1, wherein said antibacterial agent is an antibiotic selected from a group consisting of ABT-773, amoxicillin/clavulanate, aminoglycosides (oral) other than tobramycin, ampicillin/sulbactam, amphomycin ristocetin, azithromycin, bacitracin, buforin II, carbomycin, cephalosporins (oral), cecropin P1, clarithromycin, erythromycins, furazolidone, other nitrofurans, fusidic acid, Na fusidate, gramicidin, glycopeptides, imipenem (oral), other penems, indolicidin, josamycin, linezolid,

other oxazolidinones, magainan II, macrolides, metronidazole, other nitroimidazoles, mikamycin, mutacin B-Ny266, mutacin B-JH1140, mutacin J-T8, other bacteriocins, nisin, nisin A, other basic polypeptides, novobiocin, oleandomycin, ostreogrycin, piperacillin/tazobactam, pristinamycin, ramoplanin, ranalexin, other cationic peptides, reuterin, other lantibiotics, rifaximin, other rifamicins, rosamicin, rosaramicin, spectinomycin, spiramycin, staphylornycin, streptogramin, streptogramin A and related compounds, synergistin, taurolidine, other lantibiotics, teicoplanin, telithromycin, ticarcillin/clavulanic acid, triacetyloleandomycin, tylosin, tyrocidin, tyrothricin, vancomycin, vernamycin, virginiamycin, agents having activity against clostridia and/or other potential neurotoxin-producing microorganisms or microorganisms producing toxic metabolites, and combinations thereof.

14. (previously presented) The method of claim 1, wherein the antibacterial agent is a radionuclide or a bacteriophage.

15. (previously presented) The method of claim 14, wherein the radionuclide is active against spores of said abnormal microorganism.

16. (previously presented) The method of claim 14, wherein the bacteriophage is specific for said abnormal microorganism.

17. (original) The method of claim 1, wherein the abnormal microorganism is a bacterium.